REVIEW COMMENTS

CALFED Alternatives Package and Technical Appendices
U.S. Bureau of Reclamation
October 24, 1997

The comments are categorized as follows: significant issues of concern, general comments, specific comments on alternative descriptions, common programs, water transfers, operation assumptions for modeling existing conditions. Comments are provided in accordance with the CALFED Memorandum dated, August 12, 1997, Response to General Comments. In addition, attached comments are provided on the specific draft technical reports.

SIGNIFICANT ISSUES OF CONCERN

- Viability of Alternative 1

There continues to be a concern that Alternative 1 is not a viable alternative as required under NEPA regulations. In comparing project purposes to actions in Alternative 1 it is unclear how Alternative 1 will meet the purpose of improving the reliability of the water supply available form the Bay-Delta system for beneficial use needs.

- Plan Formulation

The rationale used for developing subalternatives needs to be described. In addition, sufficient detail needs to be provided in the alternative descriptions to allow for a comparative analysis.

- Model Validation

Reclamation believes that validating models is an essential in determining the appropriate use of models in the CALFED process. We appreciate CALFED's support and participation in this effort and look forward to working with you to satisfactorily complete validating the analytical tools.

- Power Analysis

Reclamation does not believe that combining SWP and CVP projects in the analysis will identify the effects to the CVP generation and project-use load requirements.

GENERAL COMMENTS

1. Many of the responses to comments, simply stated that the comment was noted. It would be beneficial to provide the specific actions taken in noting the comment, for instance whether text been changed to address the comment, additional data collected or is work progressing on the subject in question.

2. A previous comment response stated that it was unclear what level of uncertainties will exist for analytical assumptions of EIR/EIS analysis. The response stated that uncertainties will be discussed where possible. Please describe and/or define what is meant by "where possible." Reclamation believes that it is critical to put assumptions into perspective.

ALTERNATIVE DESCRIPTIONS

General

1. We believe the Interagency Development Team (IDT) efforts will become an imperative part the CALFED program and we look forward to the IDT working to integrate the common programs with the storage and conveyance alternatives. We wish to reiterate the importance of providing a complete discussion of the uncertainties whenever they occur in the analysis.

2. We disagree with the assumption that there is no value in separating the qualitative from quantitative information. CALFED documents should describe quantitative information, the source of that information, and identify qualitative information as such. It is important for the reader to understand what information was used in making decisions.

3. All (Published) References used should be cited and listed in the EIR/EIS and technical reports.

4. To the extent that it is known, future agency activities should be identified (e.g., authority and estimated level of activity) to allow for agency planning and budgeting.

5. We fully support the development and implementation of a long-term scientific review process and believe it is an integral part of the alternative development process and CALFED program. We continue to believe that such a process will help to guide adaptive management decisions, resolve conflicts, and address scientific uncertainty, and add credibility.

6. To the extent possible general costs should be displayed with the proposed project benefits of each alternative. This information is necessary in order to provide the reader with a basis for alternative comparison and to provide a more detailed evaluation of the criteria.

No Action

1. A final review of the No-Action alternative and assumptions will be required once CVPIA related decisions are finalized.

Alternative 1

1. It is critical, from a NEPA perspective, to ensure that each alternative is crafted and articulated so that it meets the project purpose. It will not be sufficient to state the inadequacies of an alternative.

There is concern as to whether Alternative 1 is actually a viable alternative as required under NEPA regulations, since it does not appear to fully meet the project purpose. The analysis should also discuss the utility of this alternative in light of meeting SWRCB 95-6 standards.

Alternative 2

1. Need to describe the conveyance mechanisms for groundwater recharge locations and off stream storage. The description is unclear as to our ability to capture this water and transport it to the required locations.

2. On page 17, next to the last bullet: It remains unclear how water will enter this system from the Sacramento River (e.g. through the Delta Cross Channel Gates and/or the Mokelumne River) and what operational requirements will be necessary (e.g., existing or modified operations of Delta Cross Channel Gates).

Alternative 3

No general comments

COMMON PROGRAMS

General

1. There is a concern that the level of effort and detail has differed in the development of the common programs. This difference may prevent an equitable evaluation of the proposed alternatives. We believe the alternatives would be more credible if there were parity among common programs.

2. We understand that the goal of CALFED is not to necessarily provide a program to meet the water needs of the State, however, it will be important to identify a baseline amount of water considered acceptable for each of the alternatives.

3. It would be helpful to clearly identify the strategies CALFED is considering to ensure no significant redirected impacts.

ECOSYSTEM RESTORATION PROGRAM

1. There needs to be a detailed discussion pertaining to water availability specifically for the Ecosystem Restoration Program Plan (ERPP). The program appears to rely heavily on water transfers as a means of accomplishing restoration activities. This assumption may be unrealistic. The draft document will need to identify potential sources of transferred water including examples of past transfers in order to demonstrate that transfers are a realistic approach. We understand that it is not possible to specify the exact transfer.

2. Please describe the tools that will be used to assess the ERPP 400,000 AF e.g. the source of the water supply, the timing of releases, and the relationship to other actions (SJAMP). In addition, the supporting documentation, (e.g. DWRSIM model run) indicating that this water is in fact available should be provided in the technical report.

3. All three volumes give little attention to resources and issues outside the Valley and Delta floor. The major exception is a chapter on upper (forested) watersheds in Volume 1, but there is no comparable follow-through in Volumes II and III . Management of grazing lands is not mentioned in any systematic manner at all.

4. Volume III of ERPP does not clearly define Adaptive Management Approach. A more detailed definition of the Adaptive Management Approach and a list of triggers is necessary for a comprehensive evaluation.

5. The desired flows for the Sacramento and San Joaquin Rivers may not be reasonable targets. We suggest that CALFED evaluate the validity of these targets again before assuming such flows are implementable.

6. Volume I, Item 2: In the first line, change "asses" to read " assess." In the third line, delete comma after "documentation."

7. On page 25 of Volume I, the reference to the "800 TAF of CVP water to be allocated for fish and wildlife purposes" is incorrect. There has been considerable debate over the last 5 years because the CVPIA refers to dedication and management of CVP yield. It is more accurate to insert "yield" and also to substitute "dedication and management" for "allocation" wherever 3406(b)(2) is referenced.

WATER QUALITY PROGRAM

1. Suggest CALFED consider water quality and flow conditions that are not founded on Decision 95-6. Variations in Delta configuration and operational approaches may in fact, negate or alter the need for specific water quality standards, and certainly for the current ones. There appears to be a need to describe the overall strategy or vision for the Delta and how water quality parameters will ultimately be incorporated into this strategy or vision.

2. The level of detail provided in the Water Quality Technical report is recognized as being programmatic in nature, however, there remains a need to address certain key issues such as, the sources and fate of bromine, as well as water use efficiency actions and their impact on water quality with a degree of specificity.

3. The prioritization of the specific pollutants of concern should clearly be described in the document. Prioritization could be developed in accordance with a species specific approach or from a regional perspective.

4. There remains a concern regarding salinity management and the potential for significant redirected impacts to Reclamation customers. Unless salinity is adequately addressed, significant impacts will occur in the Reclamation service area. Salinity in the system will increase in one area if reduced in another. (Please note, our concern relates to other constituents in addition to salinity and bromine.)

5. It is still unclear what is meant by "reducing pollutants in water diverted from the Delta" and the purpose of such a reduction. This section relates to treatment actions, it is therefore necessary to describe the proposed level of treatment.

6. In the Water Quality Appendix B, there are lists of indicators of success which may not adequately monitor the action(s) being taken. Given the scientific uncertainty we again suggest an expansion of the list of indicators both in number and detail. There is also a need to describe the prioritization of alternatives with regard to water quality.

7. We believe performance measures should be linked to the actions in such a manner useful for evaluation. We wish to reiterate our previous comment that the number of public workshops and other outreach activities is not an adequate scientific measure of the action to reduce the impacts associated with recreational water use and domestic waste (outreach is an "action"; "results" can must be measurable). The documents should assess the utility of toxicity testing and the documents should stress the limitations of toxicity testing and apply this method only when appropriate.

8. The documents should address the difference and significance between what level of a constituent is detected and what is biologically available.

9. We continue to believe that the increase in juvenile anadromous fish is an inappropriate performance measure for reduction of sediment loading and turbidity.

10. We agree with the comment response that CALFED documents should clearly explain the issues associated with evaporation ponds (e.g. Kesterson) and include such an explanation in the EIR/EIS.

11. We agree with the statement that DWRSIM may not sufficiently assess water quality impacts, however an adequate quantitative analysis can efficiently be done by hand - the choices are not just DWRSIM or qualitative.

12. We believe that salinity impacts to DMC are significant enough of a concern that all the subalternatives should be analyzed (not just Alt. 1, Alt. 2, Alt. 3e).

13. There continues to be a need for specific studies to address water quality concerns. A yield increase study that provides quantitative data and one that indicates changes to water quality are essential elements to the water quality program.

14. Item 2: In the third line, change "issue" to "issues".

15. Item 3: In the first line, change " should clearly described" to read " should be clearly described" or " should clearly describe".

16. Item 5: In the second line, change "This" to read "If this". Add " If reducing pollutants mean reducing the concentration of pollutants in water diverted from the Delta, then the document should address the source of additional water for dilution."

17. Item 10: Should include some of the results of the construction of Kesterson Reservoir. Kesterson was constructed as a reservoir for holding high drainage flows to level out the discharge from the San Luis Drain into the Delta. Kesterson was not constructed as an evaporation pond. Some of the issues would include concentration of toxic compounds in the ponds, leakage of toxic compounds into the ground water and into the adjacent lands, and the use of the ponds by water fowl as fly by or wintering habitat.

WATER USE EFFICIENCY PROGRAM

1. Information related to sediment loads and flows has not been fully incorporated into the alternatives. Specific program outcomes need to be quantified and parameters defined.

2. The Water Use Efficiency Program could impact actions in both the ERPP (specifically in relationship to fish screens) and the water quality program, as well as water transfers. A more detailed analysis of linkages and impacts would serve to clarify the specific effects of these common programs.

LEVEE SYSTEM INTEGRITY PROGRAM

1. The document should generally define the location of proposed setback levees and describe the impact if any to existing structures and water quality. It is difficult to assess the impacts of the proposed program based on the existing level of detail.

2. The acceptable level of flood protection should be defined more clearly. It is important to know whether this level includes tidal influences.

OPERATIONAL ASSUMPTIONS FOR EXISTING CONDITIONS MODELING

1. Operations and potential limitations of specific fish screens should be identified e.g., diversions into proposed sites or reservoirs.

TECHNICAL REPORTS- POWER PRODUCTION ECONOMICS

General Comments

1. There is a concern with combining the Central Valley Project (CVP) and State Water Project (SWP) impacts. Although we had some general discussions that this approach would be acceptable at a programmatic level, presenting the results in this manner is very misleading. It is important to remember that the CVP is a net power producer, while the SWP is a net power consumer. Combining the two projects will show them as a net power user and skew impacts. It is important to analyze and document the impacts to CVP preference power customers. For example, one problem with combining the impacts in this way is the cost of the power. The cost of CVP power is based on specific repayment obligations tied to authorizations of the project. Cost of CVP power will also include charges to the CVPIA restoration fund. CVP costs can be broken into two components - project use and preference customer, which are significantly different than each other. While we are uncertain about how SWP power costs are determined, it is undoubtedly determined very differently than CVP costs. The document should explain the differences.

Another key item that should be analyzed is the effect on peaking energy and capacity available for marketing (total CVP generation less CVP project-use) is of utmost concern. Combining the two projects does not accomplish the objective of identifying the effects to the CVP on-peak generation and project-use load requirements.

Other items to consider are: defining each projects specific role, how will new facilities be sized, who will pump on-peak versus off-peak, and how generation and energy use will be split.

2. It appears that DWRSIM is being used to determine generation and project energy

requirements. As has been commented on before, DWRSIM is insufficient for this use. It lacks sufficient detail for the CVP (and may for the SWP also). In meetings with CALFED program staff, we were told that there was not sufficient time to modify DWRSIM, and that in lieu of this water results from DWRSIM would be used in some type of separate post processor to determine power impacts. This does not appear to have been done.

3. The Impact Assessment is very incomplete and contains significant errors (see specific comments).

Specific Comments- Affected Environment

Page 1: Generation and Energy Use are shown in the same table and figure. It was agreed that if the two projects' impacts are combined for simplification, that no net energy number would be shown. While this has not been done, showing the numbers next to each other essentially does the same thing. Generation and Energy use should be shown in separate tables and figures.
Table 1: Does the average energy cost presented in Table 1 pertain to CVP costs, SWP cost, or a combined cost ? Suggest that CVP and SWP costs be presented separately. Also, the second line of page one need to change "project's" to "projects".

Page 2: Under 3.0 Sources of Information, indicates DWRSIM was used as source of information. Please see general comment #2. In addition, much of the data in this section is historic data and not model data.

Page 7: Section 4.2.3 Background on Electric Industry Restructuring, discussion does not include how CVP or SWP are affected, or potential impacts on municipal utilities (including CVP preference customers).

Page 9: Under CVP History, this section gives general background on CVP rates for preference customers, but doesn't discuss project use rates at all. Under SWP History, this section does not mention how rates are determined. Consistent types of data should be shown for both projects.

Page 10: Figure 2 shows historic generation. Based on what is shown in this figure, it appears unlikely that the average annual generation shown in Table 1, determined by DWRSIM, is as high as it is. Also, under historic generation, some discussion of CVP bypass at Shasta for Environmental purposes would be useful. In the fourth line of page 10, change "Shasta for Environmental purposes" to read "Shasta Dam for environmental Purposes".

Page 11: Figure 4 shows project energy use. It should be noted that CVP project energy use is a relatively small fraction of the total. It also appears low in this figure. This data should be checked.

Page 12: Figure 5 shows historic Energy Sales. Footnote indicates firm commercial power only.

If this is true, numbers seem high for CVP. Does this include purchases made by Western to support commercial load? Should show CVP generation only.

Page 13: Under Current Resource Conditions, generation and energy use discussed in same paragraph., should keep separate. In the first line of page 13, change "use discussed" to read "use are discussed".

Page 14: Table 2 appears to be preference rate for CVP only. Important to note this rate also includes purchase power. It is also worthwhile to present project use rate? No capacity rate shown for SWP, and on previous page indicates SWP does not have capacity rate, yet figure 7 (pg 13) shows capacity sales for SWP. This is a confusing presentation of data and illustrates the difference between CVP and SWP rates. Again, it elicits the sentiment that the impact analyses should be conducted without combining the two projects. Also, line 2 please change "purchase power" to "purchased power".

Pages 15 through 25: Deals with facilities throughout different regions. Since impacts will be discussed on system wide basis, it is unnecessary and confusing to break facilities into regions. In discussions of Surface Water pumping, numerous CVP pumping plants are omitted e.g. Contra Costa in Delta, San Felipe (Pacheco) and Westlands relift in San Joaquin, Corning Canal, Folsom in Sacramento Valley. List of CVP pumping plants needs to be thoroughly reviewed. Level of detail for CVP plants not consistent with SWP pumping plants. Should also include some discussion of non pumping CVP project use even if not large portion of energy use. This would include Tehama Colusa facilities, hatcheries, etc. These facilities need to be included in the Affected Environment as well as the impact assessment or CVP project load will be underestimated. Also, please change "system wide" to "system-wide".

Page 15 Line 4: change "San Felipe (Pacheco)" to read "Pacheco in the San Felipe Project."

Page 15 Line 7: change :"non pumping" to "nonpumping".

Page 2, under section 3.0 Sources of Information: DWRSIM does not have the adequate capability for use in evaluating CVP project-use load. At the July 24 meeting, we learned that some post-processors are going to be used for processing data from DWRSIM output. It is not clear how it was done.

Page 25, under Personal Communication: Thomas Dang is with the U.S. Bureau of Reclamation, Central Valley Operations Office.

<u>Specific Comments- Environmental Impacts</u>

Page 2: Heading in Table 1 (and other tables throughout this section) shows units as (000 MWH) believe should be (1,000 MWh).

Page 2: Table 1 shows generation and energy use together. Recommend they be separated.

Page 3: First bullet indicates capacity impacts measured on average annual basis. Capacity is traditionally measured on dry (adverse) condition for hydro facilities, whether a specific dry period, specific dry year, or some exceedence/frequency. Believe this would be more appropriate for capacity values, otherwise need explanation as to why this approach (average year) is used. Under Section 3.2.1, a table of existing and proposed nameplate capacity ratings of the power plants was mentioned, but it cannot be found in the document.

Page 4: First paragraph indicates that DWRSIM was used for energy generation and project use. DWRSIM, as currently formulated, is inadequate for this task.

Page 4: First bullet indicates monthly maximum instantaneous capacity estimated based on average storage. This statement is not correct since average monthly storage for an average year is used. Should be characterized as average monthly capacity.

Page 4: Last paragraph indicates impacts to locally-owned hydroelectric facilities downstream of CVP and SWP facilities evaluated in lesser detail. Evaluation was not found in the impact assessment. If CALFED includes alternatives to modify upstream flows or runoff, the limit to downstream impacts only may not be appropriate.

Page 5: Under CVP Power Production and Replacement Costs, there is a discussion of contract 2948A and the statement that power impacts for Western need to be considered relative to this agreement. Impacts are to CVP and customers, not Western. Since 2948A expires in 2004 and is not expected to be renewed and the analysis is supposedly done at the 2020 level, this contract is irrelevant. The document seems to state that in the following paragraph, but is confusing. Need to discuss Western's post 2004 marketing plan.

Page 6, second bullet: indicates the forecasted market rate of power is the sum of the capacity, energy, and ancillary service values. It would be helpful to the reader to have it clarified as to whether this combination of rate is the same as composite rate.

Page. 9: Discussion of power values mixes units. Uses both mills and cents/kWh. Since most previous data in $/MWh, should probably use that unit. Mills and $/MWh are essentially analogous.

Page 10: Under discussion of Ancillary Services, indicates value 0.75 cents/kWh used. The following paragraph then indicates that values for ancillary services are assumed for hydro capacity which is not supported by energy only. There is no explanation of what the definition of capacity supported by energy is. How does this relate back to an energy charge for ancillary services. This was not used in the impact assessment further on in the chapter.

It is important to note, that this value for ancillary services is probably applicable to generation only and not project energy use. This may require separate power values to be used for generation and energy use impact assessment, if ancillary services are tied to a melded energy value.

Page 12: Section 5.0 Environmental Impact Analysis states that due to the interrelated nature of facilities throughout the study area, quantitative impacts are developed for the overall study area and not a regional basis. Concur that this is the only valid approach. Yet tables 5 through 7 continue to show the regions.

Page 13: Section 5.1.1, Overall Study Area No-Action Resources Conditions, first bullet indicates implementation of the CVPIA. It is not clear as to what extent the CVPIA mandate, as it relates to power, was implemented for the No-Action alternative; especially, on the CVP Trinity River Division where operations at Clair Engle Reservoir and diversion to the Sacramento River have a very important role in determining generation from Trinity, Carr, and Spring Creek powerplants.

Pages 17-18: Tables 5 and 6 separate generation and energy use. This is a better approach than previous tables that combined the two items. There is concern that these tables are under the No Action alternative, the statement is made that they are similar to existing conditions.

Energy generation increased by 10% from existing to No Action (assume this is primarily at SWP recapture plants). CVP generation is expected to decrease if less Trinity water is diverted and as more upstream water rights are developed on the American River. This illustrates another problem associated with combining the two projects.

Energy use increased by 45% from existing to No Action. This is hardly similar. Expect that most of this increase is at the SWP and not the CVP. This is another problem of combining the two projects. Based on these changes in No Action numbers only, need to seriously reconsider combining the impacts for the two projects. (Also, eliminate Regions from these tables).

Page 17-18: In the second line of the second paragraph, change "at" to read "in". In the third line, change "reconsider combining" to read "consider separating."

Page 21: Table 8 describes No Action as similar to existing conditions for Generation, Energy Use, and Power Rates. Display of generation and Energy Use were discussed previously, it is inappropriate to display them together. For Power Rates, it is expected that because of deregulation, they will not be similar to Existing Conditions.

Pages 22 and 25: Generation is valued from 2.25 $/MWh to 3.00 $/MWh and Energy Use is valued from 2.60 $/MWh to 3.40 $/MWh. First of all, the values appear off by a factor of 10. This may have occurred when they were converted from cents/kWh shown on page 9.

Secondly, it appears off-peak values are applied to generation and on-peak values were applied to energy use. It is unclear that either one should be 100% on or off peak, but this approach is

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definitely not valid since both projects try to maximize on-peak generation and minimize on-peak energy use, within operating constraints. Generation should include a value for ancillary services as discussed previously.

Because of these errors in unit energy values, any dollar results shown in the impact assessment are invalid.

Page 41: Discussion of Sites/Colusa Reservoir indicates as on-stream storage. We understand that it is an Off-Stream storage project and that water will have to be pumped in. Statement made that Sites Reservoir would have a positive impact on energy resources, this is true if the watershed feeding the reservoir produces sufficient runoff in order to generate enough electrical power to offset net power losses from pumping-releasing water from-to the Sacramento River. This would require additional analysis of the watershed upstream of the reservoir.

TECHNICAL REPORTS- TRANSPORTATION

General

If the purpose of the draft technical report is to serve as appendix to the Programmatic EIR/EIS it would be helpful to incorporate a brief description of the three alternatives analyzed in the technical appendix.

Specific Comments - Affected Environment

Page 2, Section 2.0: Introduction line 8 correct "relects" to reflects.

Page 3 , Section 4.2.1: In general the terminology used for transportation descriptions is "controlled-access". Suggest line 1 be changed to read " The major controlled - access freeways that run north-south through the Delta are Interstate 5 and State Highway 99".

Page 4, Section 4.2.2: Southern Pacific is now owned by Union Pacific. References to Southern Pacific should be replaced with Union Pacific.

Page 4, Section 4.2.3: Need to define the term "commercial port" to include marinas or revise section to delete references to marinas. Line 12 refers to a commercial port located near Terminus, on the Little Potato Slough, believe the reference is to Tower Marina.

Page 5, Section 4.4: Line 1 revise to read " State Route 45" and the Sacramento River north from Knights landing. Line 7 refers to "full-access freeways"- freeways are not usually considered full access but are normally referred to as "controlled access".

Page 5, Section 4.5.2: Line 4 refers to a rail line that follows the route of Interstate 5 through the San Joaquin Valley. Believe the reference may be to Highway 99 - since there is no rail route along I-5.

Page 6, Section 4.6.1: Line 13 states -"Interstates 15, 10 and 8 runs from east from Los Angeles toward Arizona". I-15 is considered North-South and I-8 originates in San Diego.

Page 7, Line 4: What is meant by "The receding information"?

Specific Comments - Environmental Impacts

Page 2 Section 2.1: Summary of Potential Significant Impacts; It would be beneficial to the reader to have this broken into subsections that coincide with the regions i.e., Delta Region, Bay Region, Sacramento Region, etc.,.

Page 3 Section 2.1: Line 1 refers the reader to the summary of potential impacts for the Delta Region for a discussion of the nature of these impacts. There is no discussion of relocation impacts although they are indirect, it would be beneficial to mention that there are impacts of relocation (economics).

Page 3 Section 2.2 Line 3: Need to explain why there would be no mitigation for operational and indirect impacts associated with relocation of road and rail lines. Are these impacts less than significant or are they unavoidable impacts of relocations. Page 2 states that there will be mitigation for temporary impacts.

Page 5 Section 5.1.1: Delta Region line 2 revise to read "trends in increased traffic patterns in this region are ...."

Page 5 Section 5.1.1: Line 10 revise to read " but there is not sufficient existing information to evaluate the ...."

Page 5 Section 5.1.1: Second Paragraph, correct "unliked" to read unlikely.

Page 5 Section 5.1.1: Second Paragraph, last sentence revise to read: " Under the no action alternative, no impacts would be anticipated to railways and commercial shipping routes.

Page 6 Section 5.2.1: Third paragraph last line - the rerouted ships would port at either Stockton or San Francisco, since these are the only two other commercial ports located within the study area.

Page 7 Section 5.2.1 last paragraph: This paragraph implies that the data developed for this section relied solely on information in a summary table, as opposed to obtaining the information through a completed analysis albeit a programmatic one. The preceding information presented in

the report implies an actual analysis based on existing information was completed. We assume a general traffic analysis associated for each alternative was completed and the paragraph should be changed to reflect this action.

Page 9 Section 5.3.3: Summary of Potential Significant Unavoidable Impacts appears to be an exact repeat of Section 2.3 Summary of Potential Significant Unavoidable Impacts it is confusing to the reader as to the distinguishing information in these two sections.

Page 9 Section 5.3.4 Direct Construction Related Impacts: Since the only impacts appear to be associated with the Ecosystem Restoration Program for Alternative I, it might reduce document repetition if this summary statement is simply made at the end of the subsection Ecosystem restoration Program as opposed to listing the other programs.

TECHNICAL REPORTS- FLOOD CONTROL

General

Although the information provided is intended for a programmatic document it is somewhat difficult to review the level of potential impacts except in a very broad sense due to the very general nature of the proposed program alternatives. It is assumed that at the time a preferred alternative is developed a sense of the level of flood protection required for the Delta levees will be established or at a minimum, a range of protection will be established. In addition, it would be helpful to identify in a general sense the area of levied islands that will protected and maintained and a general location of proposed set back levees.

Specific Comments - Affected Environment

Page 1, Section 1.0 Summary : Will levees be held to PL 99 standard design criteria?
Second Paragraph Line 3 correct the word "roject" to read project.

Page 3 Section 2.0 Introduction Paragraph 3 Line 1: correct the word "identifieded" to identify.

Page 4 Section 4.2 Regulatory Context Paragraph 1 Line 8: correct the "he" to the.

Page 8 Line 2: Page "PL 99" to read "PL 84-99".

Page 14 Delta Flooding Line 6 : The statement is made that about 100 failures have occurred since the early 1900's in the Delta. We believe this number does not take into account the recent flooding this past December and January.

Page 14, Last Line: Change "this December" to read "December 1996".

Page 27 Public Law 84-99: Documents states that 100 year level of protection with 1.5 feet of freeboard is provided by this design standard. In fact, there is no design standard specified under this program. Rather it requires that levees be repaired to the level of protection prior to the flood event.

Page 28 Levee Financing: Suggest including recent economic data associated with flood repairs in 1997.

Page 3 Section 2.1 Summary of Potential Significant Impacts Bullet 8: Suggest rewording to possible increased seepage. We understood that recent hydrology reports indicate flooding of various Delta Islands does not necessarily induce seepage or induce flooding in the neighboring islands.

Page 8 Paragraph 2 line 6: refers to maintaining the levees to PL 99 performance standards. There is no specific standard that is maintained under PL 99 rather it requires the levees to be restored to the level of protection provided prior to the flood event.

Page 9 Physical Trends: Paragraph 3 suggest information from the 1997 floods be included in the total number of levee failures.

Page 14 Impact Section 1-8 Line 8: Delete the word "is" sentence will read " This may be a gradual..."

Page 15 Second Paragraph Bullet 1: Refers to the Delta Levee Base Level of Protection Plan. Document needs to concisely describe the proposed level of flood protection.

Page 17 and 23: Correct Mitigation Stategy to read Mitigation Strategy.

TECHNICAL REPORTS- MUNICIPAL AND INDUSTRIAL WATER SUPPLY ECONOMICS

General

It is difficult to review the municipal and industrial water supply economics without costs. There is a need for general costs associated with the various alternatives in order to complete the comparative analysis.

Specific Comments - Affected Environment

Page 17 Section 4.5.2: The document states that the Sacramento Valley has relatively abundant water supplies of good quality in comparison to other regions. However, on page 4 of the Technical Impact report it is stated that, "If CALFED alternatives were to provide water at a lower cost than other options, water price would be reduced and demand would increase". If demand in

certain areas is currently being met (i.e. Sacramento Region) is it valid to assume that demand would increase with supply?

This paragraph states that water prices and also the level of demand are fixed at the no action level. Will this assumption provide a realistic dollar value for CALFED alternative benefits when costs of CALFED alternatives are eventually developed? In addition, there is extensive discussion of Delta area municipalities, however only a brief discussion of "Other SWP Service Areas." A more detailed explanation of these other areas would be helpful.

Page 2g3: There is a need for a more explanatory justification for the number of alternatives and service areas analyzed for water quality impacts.

Page 2g3: Table 1 could be misleading.

Page 6g2: We encourage the inclusion of bromine as a water quality parameter.

Page 7g5n4: We suggest using salinity data based on the individual runs used for each alternative, rather than 472B hydrology.

Page 9g5: Any cost estimates made, should be included.

Page 14g3: There is a concern that some isolated facility options would likely result in saltier water in the DMC.

Page 22g5: It is unclear how Delta diverters will not experience different water quality impacts under Alternative 1.

TECHNICAL REPORTS- AGRICULTURAL ECONOMICS

Specific Comments - Environmental Impacts

Page 6g1n6: This is one of several (inappropriate?) hyphens scattered throughout the text.

TECHNICAL REPORTS- RIVERINE HYDRAULICS & HYDRODYNAMICS

Specific Comments - Affected Environment

Page 19g4n3: Incorrect table reference.

Page 24 Table 4.4-3: Believe there is a need to include the analysis of an injection point at Carquinez.

Page A-3 and subsequent: The merit of republishing USGS rating curves is not clear.

Section: Environmental Impacts/Consequences

Page 38 Table: "Alternative 3" The basis for saying that the other alternatives are similar to 3E is not clear. Reclamation would like to see salinity impacts at Tracy Pumping Plant.

Page 101: A better discussion of Rock Slough, North Bay Aqueduct, and Tracy Pumping Plant would be helpful.

TECHNICAL REPORTS- DELTA EMERGENCY MANAGEMENT DISCUSSION PAPER

General Comments

It is difficult to provide specific comments in regards to the discussion paper since its primary focus appears to be on the general process by which the various agencies involved in emergency flood protection would provide a coordinated emergency effort. To a large extent this has been provided through the existing flood operations center although, it is not specific to the Delta.

Page 2 Paragraph 1, line 13: This statement could be more specific by identifying the federal agencies i.e., Corps, FEMA and BOR.

Page 2 Paragraph 2: Revise sentence to read: The overall focus of current emergency response activity is primarily on sites under eminent threat. These threats can reduce opportunities to allocate resources to areas under less threatening conditions, thereby preventing incidents from escalating beyond existing available resources.

Page 3 Bullet 1 : The document states that separate criteria would be needed for various types of disasters ... does this mean separate implementation criteria?

Line 7 : suggest the term seepage flows be changed to high seepage.

Line 14: It is stated that criteria for post disaster situations such as after toxic spills would identify necessary actions - would there also be a specific identification of responsible agencies; authorities and required planning efforts ?

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